



International Products

C O R P O R A T I O N

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Metal Compatibility of P-80[®] Temporary Assembly Lubricants for Incidental Food Contact (IFC) Applications

Test Method: ASTM F483-90

P-80 Emulsion IFC and P-80 THIX IFC were tested for compatibility with selected metals and found to be safe for use with all of those tested. Results are below.

% Change in Mass, Room Temperature

	Immersion Time	Aluminum 3105	Cold Rolled Steel 1018	Stainless Steel 304	Bronze Alloy 220	Titanium Alloy 8% Mn	Monel Ni/Cu	Copper Alloy CA 110	Brass Alloy 360
P-80 Emulsion	24 Hours	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	288 Hours	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
P-80 THIX	24 Hours	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	288 Hours	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

% Change in Mass, 40°C

	Immersion Time	Aluminum 3105	Cold Rolled Steel 1018	Stainless Steel 304	Bronze Alloy 220	Titanium Alloy 8% Mn	Monel Ni/Cu	Copper Alloy CA 110	Brass Alloy 360
P-80 Emulsion	24 Hours	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	288 Hours	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
P-80 THIX	24 Hours	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	288 Hours	0.0%	-0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

TAP WATER (CONTROL SAMPLES)

% Change in Mass, 40°C

	Immersion Time	Aluminum 3105	Cold Rolled Steel 1018	Stainless Steel 304	Bronze Alloy 220	Titanium Alloy 8% Mn	Monel Ni/Cu	Copper Alloy CA 110	Brass Alloy 360
Tap Water	24 Hours	0.0%	-0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	288 Hours	0.0%	-1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Test data is provided for comparison purposes only. Individuals should conduct their own tests for compatibility verification. Please contact International Products Corporation for compatibility information on any metal not shown.

- NOTES:**
- 1) The corrosion inhibition on 1018 cold rolled steel can be seen by comparing the mass loss values of the P-80 Emulsion IFC and P-80 THIX IFC to the tap water values.
 - 2) When P-80 dries on copper and some of its alloys, a green residue may develop. This residue is due to dissolved copper. If the residue is undesirable, apply P-80 to only the rubber or rinse the assembled parts afterwards.

Metal Coupons

Aluminum 3105 H24; Cold Rolled Steel 1018; Stainless Steel 304-2B; Commercial Bronze Alloy, 220; Titanium Alloy, 8% Mn, Mil-T-9046, Type IIIA; Nickel/Copper Monel 400, QQ-N281, Class A; Copper Alloy CA-110, QQ-C-576, Annealed, ETP; Brass Alloy 360, leaded, QQ-B-626, Comp. 360 bar

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